

MARX, PRODUCTIVE AND UNPRODUCTIVE LABOUR

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The question of productive and unproductive labour, the significance and precise meaning of these terms, has been widely discussed in recent years, particularly by Marxists in the advanced capitalist countries. What, at first sight, appears to be an abstruse discussion does have profound significance, both in relation to the class battles fought in the advanced capitalist countries and for those countries which are following the path of socialist development.

Those aspects of class struggle in the metropolitan countries which fall within the purview of this subject are those closely related to the growth of state expenditures, service industries, tertiary sectors, etc. Since 1945 there has been a spectacular growth, not merely in absolute but also in relative terms, of all these sectors. The expansion of all these areas of economic activity are both a source and indicator of the contradictions of the capitalist system in our present epoch.

The importance of a correct understanding of productive and unproductive labour for those countries following the socialist path is also of prime importance. When every effort is being made to expand economic activity, and with it the well-being of the masses, it becomes crucial that effort, time, labour, materials, etc., are directed towards those activities which are beneficial and productive. It may be assumed that the question as to what is or is not productive labour is a relatively simple one to resolve. However, the current discussions show, and I hope to demonstrate, that the assumed simplicity is deceptive.

Many contributors to the discussion on this question have, in my opinion, based themselves upon hasty or incomplete assessments of Marx's ideas on this subject. In this present paper I have not set out to directly criticise or rebut other writers, rather I have attempted to chart Marx's own contribution in this area and my own interpretation of this. This means that the paper is a return to sources, an examination of fundamental theory and hopefully a clarification of basic concepts. Because of the method chosen it means that the text is rather replete with quotations from Marx. However, I do not approach such quotations as forms of authority, on the assumption that because Marx said this or that therefore it must be so. On the contrary, my purpose in examining Marx's texts is to *understand* what he was saying and then attempt to construct an adequate set of theoretical proposition upon his understanding.

The approach adopted also means that I have not attempted to give immediate application to the conclusions reached. To have done so would have greatly increased the length of the paper and diffused the focus of it. Once basic theoretical proposition have been established, it will then be necessary to concretise the discussion around particular issues, but this is not the task of this paper. This means that the reader should not look for immediate prescriptions for the solution of concrete problems; rather, the paper should be seen as a contribution to a discussion upon fundamentals, which will lay the basis for concrete analysis.

I.

The most extensive treatment of the question of productive and unproductive labour by Marx is to be found in his *Theories of Surplus Value*, Part I. The major

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part of this treatment is devoted to a critical analysis of the views of the classical political economists, e.g. Adam Smith. It is in this manner of critique that Marx develops some of his own profound insights. He presents the very basis of capitalism in the following manner:

"The mere existence of a class of capitalists, and therefore of capital, depends on the productivity of labour: not however on its absolute, but on its relative productivity. For example: if a day's labour only sufficed to keep the worker alive, that is, to reproduce his labour-power, speaking in an absolute sense his labour would be productive because it would be reproductive; that is to say, because it constantly replaced the values (equal to the value of its own labour-power) which it consumed. But in the capitalist sense it would not be productive because it produced no surplus-value.

*Productivity in the capitalist sense is based on relative productivity — that the worker not only replaces an old value, but creates a new one; that he materialises more labour-time in his product than is materialised in the product that keeps him in existence as a worker. It is this kind of productive wage-labour that is the basis for the existence of capital."*¹

What emerges from the above is that, for labour to be productive for the capitalist, the labourer must produce a surplus, over and above his own necessary consumption; that he must produce a profit. However, this remains a very generalised definition, since it could apply almost equally well to all exploitative societies.

Marx, therefore, develops the theme in his analysis of Adam Smith's writings and concludes:

"Productive labour is here defined from the standpoint of capitalist production, and Adam Smith here got to the very heart of the matter, hit the nail on the head. This is one of his greatest scientific merits (as Malthus rightly observed, this critical differentiation between productive and unproductive labour remains the basis of all bourgeois political economy), that he defines productive labour as labour which is directly exchanged with capital; that is, he defines it by the exchange through which the conditions of production of labour, and value in general, whether money or commodity, are first transformed into capital (and labour into wage-labour in its scientific meaning).

*This also establishes absolutely what unproductive labour is. It is labour which is not exchanged with capital, but directly with revenue, that is, with wages or profit (including of course the various categories of those who share as co-partners in the capitalists' profits, such as interest and rent)".*²

So now we have a definition of both productive and unproductive labour. Again, however, these definitions are generalised and almost tautologous. There is, moreover, a considerable discussion by Marx of various activities, or types of labour, which are seen at one moment as productive and at another as being unproductive. Nor is this mere whimsy or contrariness, it flows from the basic definition of productive labour being that which is exchanged with capital. He introduces the question of tailoring and analyses it thus:

". . . the jobbing tailor who works for me at home is not a productive labourer, although his labour provides me with a product, the trousers, and

him with the price of his labour, the money. It may be that the quantity of labour performed by the jobbing tailor is greater than that contained in the price which he gets from me. And this is even probable, since the price of his labour is determined by the price which the productive tailor gets. This, however, is all the same so far as I am concerned. Once the price has been fixed, it is a matter of complete indifference to me whether he works eight or ten hours. What I am concerned with is only the use-value, the trousers. . . ."³

Marx then proceeds to argue that, if the tailor were employed by a mastertailor, then the labour would be productive. Since the labour in this second case would be exchanged with the master-tailor's *capital* and would entail a profit for the master-tailor, it is by definition productive.

Given these assumptions, Marx then comments ". . . the *content*, the concrete character, the particular utility of the labour, seems at first to make no difference — as we have just seen. . . ."⁴ The phrase 'seems to make no difference' should be noted; Marx is not saying "does *not* make any difference", but that the utility of the object only "*seems* to make no difference" in establishing the productiveness of labour. We shall have reason to return to this point later.

However, Marx develops his line of inquiry to include the production of immaterial commodities. He takes the example of a singer; in the one case the singer's performance is unproductive if he is self-employed, and in another case — where he is employed by a theatre owner — the labour is deemed productive. This line of thought, on the part of Marx, has led some observers to conclude that *all* wage-labour employed by capital is productive (provided a profit is obtained by the employer). This simplistic view is based upon an assumption that all wage-labour is in fact *exchanged* with capital. However, such conclusions are, in my opinion, unwarranted, since they fail to take into account the *whole* of Marx's writings on the subject of labour and productive and unproductive labour, and fail to establish his overall view of the capitalist mode of production.

II

Let us now take what may seem to be a detour, but which in fact will lead us to very heart of the question; let us examine Marx's attitude towards the labour process. This examination is very necessary, since the labour process and the production of surplus-value are intimately connected, and provide a central theme to Marx's substantive views on productive labour.

Marx begins his discussion of the labour process in this way:

"The capitalist buys labour-power to use it; and labour-power in use is labour itself. The purchaser of labour-power consumes it by setting the seller to work. By working, the latter becomes actually, what before he only was potentially, labour-power in action, a labourer. In order that his labour may re-appear in a commodity, he must, before all things, expend it on something useful, on something capable of satisfying a want of some sort. Hence, what the capitalist sets the labourer to produce is a particular use-value, a specified article. The fact that the production of use-values, or goods, is carried on under the control of a capitalist and on his behalf, does not alter the general character of that production (my emphasis, K.J.T.)".⁵

From the above it would seem that Marx is equating commodities and *material* use-values, and sees the labour process under capitalism as being conditioned by this. This is confirmed, but also qualified, by Marx's definition of commodities, which he gives in the first chapter of Vol. I of *Capital*. He says there:

"A commodity is, in the first place, an object outside of us, a thing that by its properties satisfies wants of some sort or another" (my emphasis, K.J.T.).⁶

Marx then proceeds to further qualify his definition: "The nature of such wants, whether for instance they spring from the stomach or from the fancy, makes no difference."⁷ Therefore, the usefulness of the object is not determined by the nature of the object itself but by the user, i.e. it may be food, clothing, shelter, etc., all necessary to preserve life; or it may be of a frivolous nature to enliven one's otherwise drab existence. However, as if to emphasise his original point, Marx says a little later:

"The utility of a thing makes it a use-value. But this utility is not a thing of air. Being limited by the physical properties of a commodity, it has no existence apart from that commodity" (my emphasis, K.J.T.).⁸

And later: Use-values become a reality only by use or consumption: *they also constitute the substance of all wealth*, whatever may be the social form of that wealth (my emphasis, K.J.T.).⁹

At this point I do not intend to pursue Marx's development of the other aspects of commodities, i.e. exchange-value and value, since they do not directly concern us here. However, what does emerge from the above is the direct connection Marx makes between the production of use-values in the labour process and the production of value/surplus-value.

It is noteworthy that Marx introduces the concept of productive labour a little later in Chapter One of *Capital* and uses the term in the conventional sense:

"In general, the greater the productiveness of labour, the less is the labour-time required for the production of an article, the less is the amount of labour crystallised in that article, the less its value and vice versa . . . The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labour incorporated in it".¹⁰

Here Marx is not concerned with the production of *value*, but of use-values of material things. But this concept of productive labour is carried through the rest of Chapter One.

When Marx comes to the question of surplus-value, he discusses it first in the context of "The General Formula for Capital", Chapter Four of Volume I. It is of some note that he makes the point very early in this chapter: "As a matter of history, capital, as opposed to landed property, invariably takes the form at first of money: it appears as moneyed wealth, as the capital of the merchant and of the userer."¹¹

The whole of the discussion then proceeds on the basis of a comparison between the simple circulation of commodities, and the circulation of money-capital. Marx contrasts simple circulation, using the formula $C - M - C$, i.e. the sale of a commodity for money and the purchase of another commodity of equal value, with

the circulation of money-capital, $M - C - M'$ where $M' > M$. This is taken to be a situation where:

... *More money is withdrawn from circulation at the finish than was thrown into it at the start. The cotton that was bought for £100 is perhaps resold for £100 + £10 or £110. The exact form of this process is therefore $M - C - M'$ where $M' = M + \Delta M =$ the original sum advanced, plus an increment. The increment or excess over the original value I call 'surplus-value'.¹²*

What is of particular note here is that Marx is not concerned with the production of surplus-value, but merely the formal aspect of the purpose and use of money-capital in acquiring an increment to the original sum advanced. The introduction of the category of merchant capital right at the beginning of the particular chapter reinforces this conclusion. If it were not the case that Marx was only concerned with the formal aspects of the acquisition of surplus-value at this point, why, we may ask, does he put "surplus-value" between inverted commas? This surely indicates that what he did was to serve notice that, at a later stage, in the third volume of *Capital*, he would analyse both the production and distribution of surplus-value amongst industrial capital, commercial capital, interest, rent, etc.

This indicates that "surplus-value" in the above context is in fact what would normally be regarded as *profit*. Although Marx continued throughout Volume I to talk about surplus-value, nearly every example he uses relates to individual capitals or capitalists. Moreover, since he also assumes throughout that all commodities are sold at their value, i.e. exchanged for the full amount of socially necessary labour embodied in them, the equation of surplus-value and profit is a legitimate expository device. But the equation $\Delta M =$ surplus-value can only be considered to be valid if one applies it to total capital; however, one should not therefore equate total social capital with total productive capital.

It is when Marx comes to discuss the production of absolute and relative surplus-value that he begins to extend and modify his characterisation of productive labour. Firstly, he reiterates a previous remark:

"This method of determining, from the standpoint of the labour-process alone, what is productive labour, is by no means directly applicable to the case of the capitalist process of production" (my emphasis, K.J.T.).¹³

It is important to remember the qualifying words, since it is clear that Marx did not intend his further statements to be taken to mean that all connection between material use-value aspects of productiveness is broken by his subsequent modifications. Commenting upon the labour process under capitalism, he says:

"The product ceases to be the direct product of an individual, and becomes a social product, produced in common by a collective labourer, i.e. by a combination of workmen, each of whom takes only a part, greater or less, in the manipulation of the subject of their labour. As the co-operative character of the labour-process becomes more and more marked, so, as a necessary consequence, does our notion of productive labour, like its agent the productive labourer, become extended".¹⁴

Co-operative and social labour, which implies not only a technical division of labour but a social division also, obviously introduces complexity into the notion of productive labour. Marx continues:

"In order to labour productively, it is no longer necessary for you to do manual work yourself; enough if you are an organ of the collective labourer, and perform one of its subordinate functions".¹⁵

This particular passage introduces an important, and crucial, definition for capitalist social production, namely "the collective labourer", so that not only do we have abstract labour but also this is carried out by the collective labourer.

However, Marx immediately introduces a note of warning:

"The first definition given of productive labour, a definition deduced from the very nature of the production of material objects, still remains correct for the collective labourer, considered as a whole. But it no longer holds good for each member, taken individually" (my emphasis, K.J.T.).¹⁶

Since Marx chose, at this point, to reiterate the connection between material objects and productive labour, at least for the total or collective labourer, this must be constantly borne in mind when he goes on to elaborate his view of productive labour when considered within the context of a capitalist society. This is reinforced by what immediately follows on from the above:

"On the other hand, however, our notion of productive labour becomes narrowed. Capitalist production is not merely the production of commodities; it is essentially the production of surplus-value." (my emphasis, K.J.T.).¹⁷

The reason why I chose to highlight the two words in the above passage is that it is quite possible to misunderstand the significance of it unless one is particularly attentive. Such a misunderstanding can lend itself to placing undue emphasis upon the production of surplus-value without due consideration of the commodity (object) material side of the question. Given Marx's previous definition of commodities as material objects, we see that the above sentence is saying, "Capitalist production of commodities (material objects) is carried out with the aim of making a profit, not merely to exchange commodities at their value."

Marx proceeds:

"The labourer produces, not for himself, but for capital. It no longer suffices, therefore, that he should simply produce. He must produce surplus-value. That labourer alone is productive who produces surplus-value for the capitalist, and thus works for the self-expansion of capital. If we may take an example from outside the sphere of production of material objects, a schoolmaster is a productive labourer, when in addition to belabouring the heads of his scholars, he works like a horse to enrich the school proprietor. That the latter has laid out his capital in a teaching factory, instead of a sausage factory, does not alter the relation".¹⁸

We can see immediately that Marx has introduced a major qualification here. He has moved the focus of productiveness from the material/object/sphere to that of the *money-form* of value and surplus-value. Since the schoolmaster does not produce a material object, it would seem that, given the *first* definition of productiveness, he was unproductive; yet Marx asserts the contrary. Moreover, it would also seem to contradict something that Marx said elsewhere, namely:

"Although all surplus-value takes the form of surplus product, surplus product as such does not represent surplus-value".¹⁹

Is it possible to resolve this apparent contradiction? Let us see how Marx proceeds from the schoolmaster:

"Hence the notion of a productive labourer implies not merely a relation between work and useful effect, between labourer and product of labour, but also a specific, social relation of production, a relation that has sprung up historically, and stamps the labourer as the direct means of creating surplus-value".²⁰

So here we have another qualification, and in reality the decisive one, that of the social relationships which are the setting for these various activities. The apparent contradiction of the non-producing schoolmaster being a productive labourer is resolved not merely by setting his activity in relationship to the school proprietor, but by setting the school proprietor's *capital* in its capitalist setting. Marx explains this later, in his introduction to "The Accumulation of Capital":

"The capitalist who produces surplus-value — i.e. who extracts unpaid labour directly from the labourer, and fixes it in commodities, is indeed the first appropriator, but by no means the ultimate owner of this surplus-value. He has to share it with capitalists, the landowners, etc., who fulfil other functions in the complex of social production. Surplus-value, therefore, splits into various parts. Its fragments fall to various categories of persons, and takes various forms, independent the one of the other, such as profit, interest, merchants' profit, rent. It is only in Book III that we can take into hand these modified forms of surplus-value" (my emphasis, K.J.T.).²¹

When we look at the example of the schoolmaster and school proprietor in the light of the foregoing, it can be seen that the school proprietor does *not* extract unpaid labour which is fixed in commodities, i.e. material objects. On the contrary, he receives a portion of *existing* pre-produced, surplus-value in the *form* of profit. Assuming competitive capitalist commodity production, the formula for the rate of profit on total social capital is $\frac{S}{C+V}$, where c = both fixed and circulating capital, and where non-productive capital is also included in the equation. If we say that $\frac{S}{C+V} = p$, we can say that for the individual capitalists the equation will be $\frac{P}{C+V} = p$, but in this case p may well be less than or more than individuals, since we have an equalization of the rate of profit. Indeed it may well be that in individual cases $s = 0$, and in such cases the owner of the capital may not produce surplus-value but merely participates in the distribution of surplus-value, according to the size of capital advanced.

However, it is also necessary to examine the activity of the schoolmaster. He certainly *is* a wage labourer, and without doubt he performs unpaid labour. Does he produce surplus-value? The answer must be no, since he is a *cost* for the circulation of the school proprietor's capital. Marx discusses costs of circulation in Volume II of *Capital*, and has this to say about wage labourers who perform *necessary* functions but are not productive:

"We shall assume that he is a wage-labourer, even one of the better paid... Whatever his pay, as a wage-labourer he works part of his time for nothing. He may receive daily the value of the product of eight working hours, yet functions for ten. But the two hours of surplus-labour he performs do not produce value any more than his eight hours of necessary labour, although by means of the latter a part of the social product is transferred to him. In the first place, looking at it from the standpoint of society, labour-power is

*used up now as before for ten hours in a mere function of circulation. It cannot be used for anything else, not for productive labour. In the second place, however, society does not pay for those two hours of surplus-labour, although they are spent by the individual who performs this labour. Society does not appropriate any extra product or value thereby. But the costs of circulation... are reduced by one-fifth" (my emphasis, K.J.T.).*²²

Thus, we can see that the schoolmaster is analogous to the case above, and as such is not a productive labourer, in the wider sense that Marx uses for total social capital. He is a *necessary cost* for the school proprietor, to enable him to appropriate his share of the surplus-value in the form of profit on the capital advanced. But a casual reading of Marx can lead one to misleading conclusions; in this respect it is a pity that he did not put *productive* in inverted commas, as he had done earlier with "surplus-value".

It is clear that since the schoolmaster does not produce, directly or collectively, a material product, his "commodity" is a service, the provision of which profits the school proprietor. That the schoolmaster is unproductive of surplus-product/surplus-value is now self-evident, yet his services are both necessary and "productive" for his employer. What we have here is an example of the fetishisation of social relationships that capitalist commodity production entails; the *form* of commodity production induces an illusion of the production of surplus-value.

We seem to have reached a position where the tentative conclusion is that a productive labourer is one who engages in production, who exchanges his labour-power with capital and whose surplus-labour is embodied in material commodities, i.e. surplus-product. The labourer who also exchanges his labour-power with capital but does not produce a material commodity is not productive of surplus-value, yet his labour is necessary to enable his employer to realise the average rate of profit on the capital advanced to provide the service. It will be seen that this definition modifies Marx's original one, where he says that the productive labourer is one who exchanges his labour-power with capital, and not with revenue. It can be seen that, with our modified definition, a labourer can indeed exchange his labour-power with capital, yet still be unproductive. The capitalist who provides a service, e.g. the school proprietor, obviously *does* advance capital to provide it, we cannot consider the money advanced as revenue being spent. However, what may be a profitable venture for the individual capital or capitalist cannot therefore be automatically considered to be productive of surplus-value from the point of view of total social capital. This aspect we shall now consider.

III

Let us now consider the question of the production of luxury goods. Marx defines luxury goods as those articles of consumption "...which enter into the consumption of the capitalist class, and can therefore be exchanged only for spent-surplus-value (i.e. revenue), which never falls to the share of the labourer".²³ Or, in a slightly modified form, "...all goods which are not necessities and which are not commonly used by the labouring class".²⁴ Conversely, necessities are defined as:

"Articles of consumption, which enter into the consumption of the working class, and to the extent that they are necessities of life — even if frequently different in quality and value from those of the labourers — also form a

portion of the consumption of the capitalist class. For our purpose we may call this entire subdivision consumer necessities, regardless of whether such a product as tobacco is really a consumer necessity from the physiological point of view. It suffices that it is habitually such".²⁵

This latter definition accords with Marx's definition of the value of labour-power, where he says: "In contradistinction therefore to the case of other commodities, there enters into the determination of the value of labour-power a historical and moral element".²⁶ An examination of the definition of luxury goods and necessities also indicates that there is no absolute division between them in the long term; many articles of mass consumption in the advanced capitalist countries first entered the market as luxury goods readily available only to a tiny minority, e.g. vacuum cleaners, washing machines. This, again, indicates that what is socially necessary is socially determined.

Marx gives an extended treatment of luxury goods in Volume II of *Capital*, in his exposition of simple reproduction. He uses schema of reproduction where all surplus-value is consumed unproductively, and hence there is no expansion of the total social capital. As with all his schema of reproduction, he assumes that all constant capital is totally consumed in each production period, but this is a mere expository device and does not fundamentally alter any conclusions. Marx set out his schema of simple reproduction with a sub-department for the production of luxury goods as follows:

Dept.I	4000c	+	1000v	+	1000s	=	6000	
Dept.IIa	1600c	+	400v	+	400s	=	2400	
Dept.IIb	400c	+	100v	+	100s	=	600	
							=	
	6000	+	1500	+	1500	=	9000	

Dept.I = means of production, Dept.IIa = necessary means of consumption, Dept.IIb = luxury goods. Marx assumes that the capitalists of each department "spend" 60% of s on necessities and 40% on luxury goods, i.e. $I_s = 600s_n + 400s_l$, $II_a s = 240s_n + 160s_l$, $II_b s = 60s_n + 40s_l$. Since there is no accumulation, vI , vII_a and vII_b represents the total demand of workers for necessary means of consumption. We can show how demand and supply for each department equilibrates.

Supply	Demand
Dept.I $c + v + s = 6000$	4000c I
	1600c IIa
	400c IIb
	6000
Dept.IIa $c + v + s = 2400$	1000v I
	400v IIa
	100v IIb
	600s _n I
	240s _n IIa
	60s _n IIb
	2400

Dept.IIb $c + v + s = 600$	400sl I
	160sl IIa
	40sl IIb
	600

Thus, we can see that the system is in balance and can move from period to period smoothly so long as these particular proportions are maintained.

The above schema shows how the total social productive capital circulates, given the assumptions of simple reproduction. Dept.IIb and its role is of no vital consequence so long as that assumption is held to. However, the important question is, what is IIb's role if one assumes expanded reproduction, i.e. that accumulation takes place and *not all* the surplus-value is consumed unproductively?

Let us therefore examine a schema of reproduction for expanded reproduction, and analyse the consequences and role of luxury goods within it. In what follows I substitute Dept.III for Marx's Dept.IIb, solely for convenience. I assume a rate of surplus-value of 100% and that there is the same organic composition of capital in all departments. The capitalists in all departments accumulate 50% of their surplus-value, and only consume 50% unproductively. Of the unproductively consumed surplus-value, 20% is spent on luxury goods, whilst the remaining 80% is spent on necessities. I use sc to denote that portion of surplus-value going to the accumulation of constant capital, and sv for the variable portion; sn and sl denote capitalist revenue devoted to the purchase of necessities and luxuries respectively. Lastly, the ratio of $c : v = 4 : 1$ in all departments, both for the initial capital and for that accumulated.

Dept.I	$4400c + 1100v + 1100s = 6600$	
Dept.II	$1500c + 375v + 375s = 2250$	
Dept.III	$100c + 25v + 25s = 150$	
	$6000c + 1500v + 1500s = 9000$	

If we now divide the surplus-value for accumulation and capitalist consumption, we have:

Is	$= 440sc + 110sv + 440sn + 110sl = 1100$	
IIs	$= 150sc + 37.5sv + 150sn + 37.5sl = 375$	
IIIs	$= 10sc + 2.5sv + 10sn + 2.5sl = 25$	

And for equilibrium between supply and demand, with PP = Production Period, and the numerical suffix indicating the particular period, we have:

Supply PP1	
Dept.I $c+v+s = 6600$	4400c I
	440sc I
	1500c II
	150sc II
	100c III
	10sc III
	6600

Dept.II $c+v+s = 2250$	1100v I
	110sv I
	375v II
	37.5sv II
	37.5sv II
	25v III
	2.5sv III
	440sn I
	150sn II
	10sn III
	2250
Dept.III $c+v+s = 125\ 150$	110sl I
	37.5sl II
	2.5sl III
	150

The schema, as constructed, can move forward, each department adding 10% to its total capital in each production period, so long as all the current assumptions are maintained.

What we need to do now, however, is to examine to what extent Dept.III can be considered to be really productive of surplus-value. Let us grant that there is a real material product, and that the workers in Dept.III *do* provide surplus labour. And, as we can see, the capitalists of Dept.III do indeed obtain the average rate of profit.

The workers in Dept.II produce a total value of 2250, of which 375 represents surplus-product/value. Let us examine the apportionment both of the total and surplus product/value.

Firstly, there is the necessary consumption for the workers in Departments I and II which maintains production at the existing level, $vI + vII = 1475$. Secondly, there is the product/value which is used to maintain the extra workers in these two departments, i.e. $svI + svII = 147.5$. Next, there is the capitalists' necessary unproductive consumption for these two departments, $snI + snII = 590$. The total of these three items $(vI+vII) + (svI+svII) + (snI+snII) = 2212.5$. If this is deducted from the total product/value of Dept.II, we have $2250 - 2212.5 = 37.5$. And this 37.5 is equal to $vIII+svIII+snIII$.

In Dept.I there is 6600 product/value produced. From this we have to deduct $cI + cII = 5900$, and $scI + scII = 590$; adding these together we have 6490. If we deduct this 6490 from 6600, we have 110 left, which equals $cIII + scIII$.

Let us now extract from the above all of the necessary productive and unproductive expenditure. By "necessary", I mean, (a) that which is indispensable for the system to maintain itself and grow, and (b) that which allows the capitalists to function as capitalists, not merely as consumers.

Taking Depts I and II we have:

Dept.I	4400c	+	1100v	+	1100s	=	6600
Dept.II	1500c	+	375v	+	375s	=	2250

8850

From the total we can immediately deduct the original $7375 c+v$, since this is necessary to maintain the system at the existing level. This gives us a total surplus-product/value of 1475. If this is apportioned as previously, we have:

$$\begin{array}{rcl} 440sc \text{ I} + 110sv \text{ I} + 150sc \text{ II} + 37.5sv & = & 737.5 \\ 440sn \text{ I} + 150sn \text{ II} & = & 590 \\ \hline & & 1327.5 \end{array}$$

If this 1327.5 is deducted from the surplus 1475, we have 147.5 left, i.e. s_{II} and s_{III} . Now, looking at the demand which Dept. III puts on Depts I and II, we have $100c + 10sc + 25v + 2.5sv + 10sn = 147.5$.

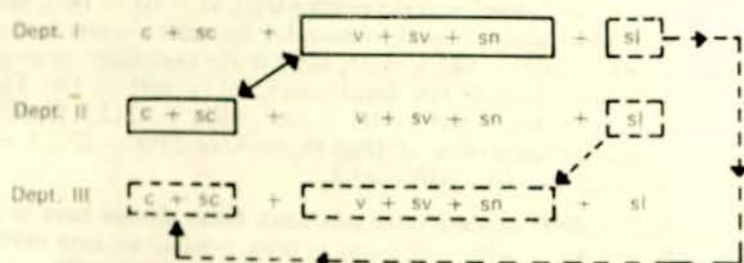
The point here is that it is clear that the output from both Dept. I and Dept. II enter into the production process as inputs, *via* c or v . But, in the case of Dept. III, its product is totally non-reproductive, it is used neither as means of production nor necessary means of consumption.

After meeting all necessary consumption — both productive and personal — Depts I and II have a surplus, the total of which corresponds to the demand of 147.5 which arises from Dept. III. The fact that Dept. I and Dept. II exchange this surplus-product/value for luxury goods should not blind us to the unproductive nature of the whole process, when viewed from the point of view of accumulation.

The workers in Dept. I are obviously dependent upon Dept. II for their articles of consumption, but, by the same token Dept. II is dependent upon Dept. I for all the means of production used in the process of producing these means of consumption. Thus there is a reciprocal relationship of dependence between the two departments.

However, the relationship of Dept. III to the production process — *qua* production — is one of taking without giving: it neither contributes means of production nor means of necessary consumption.

Diagrammatically it can be seen as follows:



Between Dept. I and Dept. II there is a two-way flow, without which there can be *no* production. But, between the first two departments and the third, there is only a one-way flow in terms of the production process. If all the material output represented by the value of s_{II} and s_{III} was destroyed, Depts I and II could still function as before; whereas, if the same departments were deprived of the goods produced by Dept. III, it would have no effect either on the production process. On the other hand, if Dept. III were deprived of the products of the other two departments, it would be unable to survive.

So we can see that the whole of the demand of Dept. III which falls upon the other two departments is a call upon surplus-value. Seen from the point of view

of total social capital, luxury production is unproductive. Let us recall what Marx said:

*"Although all surplus-value takes the form of surplus-product, surplus-product as such does not represent surplus-value".*²⁷

Any increase in the consumption of luxury goods is predicated upon an increase in production in Depts I and II. Moreover, any increase in the percentage of capitalist consumption devoted to Dept. III will slow down the growth of the other two departments in material terms. The exception to this will be an increase in productivity in Depts I and II.

Marx considers "The production of surplus-value is the chief end and aim of capitalist production."²⁸ And, given this overall consideration, "Surplus-value is convertible into capital solely because the surplus-product, whose value it is, already comprises the material elements of new capital."²⁹ It follows from this, "It is characteristic of all unproductive labourers that they are at my command—only to the extent as I exploit productive labourers.... However, my power to employ productive labourers by no means grows in the same proportion as I employ unproductive labourers, but on the contrary diminishes in the same proportion".³⁰

Marx also makes the following point:

*"...on the basis of capitalist production, where the great majority of material commodities — material and palpable things — is produced by wage-labourers under the domination of capital, unproductive labourers...can only be paid for either out of the wages of the productive labourers, or out of the profits of their employer...quite apart from the circumstances that those productive labourers produce the material basis of the subsistence and, consequently, the existence, of the unproductive labourers".*³¹

Taking the tentative conclusions of Section II into account and the above analysis, I come to the following conclusions. For total social capital, a correct definition of productive and unproductive labour must take into account the material form of commodities and the purpose for which they are capable of being used; and so-called immaterial commodities — i.e. services — are in fact unproductive consumption. Moreover, luxury goods are a drain upon surplus-value and upon the surplus-product of an economy, and they slow down the rate of growth of the productive sectors. Therefore productive labour is labour which is exchanged with capital, and produces a surplus product — a surplus product, moreover, which is a material and palpable thing and is capable of being used as capital in its material form. However, labour which is unproductive may itself be necessary, and should not therefore be considered wasteful. It is precisely this distinction between necessary unproductive labour and unnecessary unproductive labour which needs to be integrated within the modified characterisation of productive and unproductive labour advanced here.

IV

Now let us turn to the question of accumulation in the light of the foregoing.

First, I want to examine the previous model of expanded reproduction which included luxury production, and see what would happen if in Depts I and II those

portions of the surplus-value devoted to luxury products were accumulated. In this model, the capitalists will still have the same quantity of necessary means of consumption, but no luxury goods consumption. I start with the same initial capital and assume the same rate of surplus-value.

$$\text{Dept.I } 4400c + 1100v + 1100s = 6600$$

$$\text{Dept.II } 1500c + 375v + 375s = 2250$$

Allocating the surplus-value we have:

$$I_s = 440s_n + 528s_c + 132s_v = 1100$$

$$II_s = 160s_n + 172s_c + 43s_v = 375$$

And supply and demand are in equilibrium:

Supply

Dept.I 6600

Demand

4400c I

528sc I

1500c II

172sc II

6600

Dept.II 2250

1100v I

132sv I

440sn I

375v II

43sv II

160sn II

2250

The above now gives a growth rate of approximately 12%, as against 10% in the three-Department model. The number of workers employed is the same, assuming the same value of labour-power, i.e. $vI + svI + vII + svII = 1650$, whilst in the three-Department model we had $vI + svI + vII + svII + vIII + svIII = 1650$.

With the two department schema growing at 12% per production period, we have, at the end of five periods:

Dept.I 9692 capital + 1938 surplus-value

Dept.II 3304 capital + 660 surplus-value

Total surplus-value = 2598

Looking at the same two departments' growth in the three department schema, we have, after five periods:

Dept.I 8857 capital + 1771 surplus-value

Dept.II 3014 capital + 602 surplus-value

Total surplus-value 2373

Even if we were to add the "surplus-value" of Dept.III after five periods, i.e. 40, the total surplus-value in the three-department schema would only be 2413.

If we look at the total social product, i.e. $c + v + s$, we find that the two-department schema has 15,594 at the end of five periods, whilst the three-department schema has only 14,885.

From this we can see that luxury goods production is not merely a different quantitative distribution of produced surplus-value, but, like *all* unproductive

consumption, it is a positive brake upon the expansion of production in the whole economy.

We can now move on and look further at the question of accumulation. We first need to recognise that when, looking at this question, it is not sufficient to divide national income merely into two segments, i.e. consumption and savings, or consumption and investment. The Keynesian method of equating savings and investment slurs over or hides quite crucial aspects of the question. In reality, national income must, initially, be viewed as being divided into three parts: (a) consumption by productive labourers, (b) productive investment and (c) consumption which is unproductive and which includes unproductive labourers.

Furthermore, one needs to know how much of the unproductive consumption is *necessary* consumption, i.e. for "labourers" who are unproductive but necessary.

Earlier I analysed the activity of the schoolmaster, from Marx's example, and came to the conclusion that his labour was a necessary cost for the school proprietor who was striving to obtain a profit. However, the labour of the schoolmaster is also necessary for *society*; hence the ability of his services to command a portion of the available product/value.

In discussing the costs of the circulation of capital, Marx puts forward the proposition of a buying and selling agent employed by a capitalist, and says:

*"He performs a necessary function, because the process of reproduction itself includes unproductive functions. His usefulness does not consist in transforming an unproductive function into a productive one, nor unproductive into productive labour. It would be a miracle if such a transformation could be accomplished by the mere transfer of a function. His usefulness consists rather in the fact that a smaller part of society's labour-power is tied up in this unproductive function".*³²

Similarly, when analysing book-keeping when it becomes a specialised function, he adopts the same attitude:

*"... it is palpably clear that this function and the instruments of labour consumed by it, such as paper, etc., represent additional consumption of labour-time and instruments which are necessary, but constitute a deduction from the time available for productive consumption as well as from the instruments of labour which function in the real process of production, and enter into the creation of products and value. The nature of the function is not changed... by its conversion into an independent function of special agents exclusively entrusted with it".*³³

Neither the schoolmaster nor the book-keeper are productive labourers from the standpoint of society, yet, given the division of labour and the increased complexity of society with the advance of capitalist industrialisation, we can see that they are necessary, their functions are necessary and their labour is necessary.

However, it would be unwarranted to assume that all necessary labour which is unproductive is necessary under each and every condition. The necessity of certain functions, both productive and unproductive, are dictated by the *technical* nature of production. Other functions which may be deemed necessary are so defined by

the nature of the society in which they operate. A small illustration may suffice here; given the fact that we live in a money-commodity society, ticket collectors are necessary on railways, and, given the previous definitions, we can hardly consider such labour productive. However, if rail travel were to be made a free service, the labour of the ticket collectors would not be necessary. The *cost* to society of such workers could be an important element when attempting to estimate the true economic surplus available. Therefore, we can say that that which is socially necessary is also socially determined, and that the social priorities adopted by any society — consciously or unconsciously — will also influence the type of technologies developed and adopted.

In this respect the social and technical division of labour becomes an important factual and conceptual tool in understanding and grappling with the problems of accumulation. The division of labour is itself socially determined, and is not wholly determined by technology.

In the light of this, we now need to revise our initial division of national income into three parts. We should now view the division of national income under the following heads:

1. Fund for the renewal of productive fixed capital.
2. Productive consumption fund: wages and salaries of the producers and their families (including pension, sick pay, etc.), plus collective consumption which raises the standard of living, plus replacement of producers' housing.
3. Unproductive consumption fund: salaries plus collective consumption of society which does not increase the standard of living of the producers (administration, armed forces, etc.).
4. Minimum necessary reserve fund.
5. Potential investment fund: what is left of the gross product after deducting 1, 2, 3 and 4.

Looking at the above, it may be seen that the simplistic view that any increase in the investment fund automatically reduces productive consumption is wrong. It may well be that item 3 can be considerably reduced without any effect upon 1, 2 or 4, and can thereby increase item 5.³⁴

Moreover, even the above is by no means the end of the story, since items 1 to 5 deal only with actual GNP and actual surplus. It takes no account of the *potential* surplus which may be brought into being in certain circumstances.

In the dependent underdeveloped countries, where the mass of the population still lives and works in the countryside in agricultural occupations, there will exist a potential surplus which can arise in two ways: (a) by full, or fuller, employment of rural labour, to increase food production; the amount of rural underemployment is well documented. (b) by the use of underemployed rural labour to build infrastructural works, roads, canals, railways, houses, small dams.

The use of both forms in reality depends upon a revolutionary social, economic and political change taking place. Fundamentally, this means the abolition of the landlord and capitalist class, and the creation of mass social control over the

resources of a country. Such a change can (a) redistribute the existing surplus, and (b) make an actuality of the potential surplus. However, for the full benefits of such a change to occur it is necessary to have a proper appreciation of productive, unproductive and necessary labour. Whilst it is clear from the above analysis that Marx did have such an appreciation, it was not well articulated within his writings. As I think I have shown, the references are disparate and scattered, and have led certain of his followers to come to erroneous conclusions regarding productive and unproductive labour.

Given Marx's first, and formal, definition of productive labour — the school-master — in Volume I of *Capital*, and the discussion of the question in *Theories of Surplus Value*, one could arrive at the farcical conclusion that the path to development might be the setting up of chains of tailors' shops, barbers', singing academies, etc., since they are productive of "surplus-value". The very proposition should be sufficient for those who consider immaterial commodities (i.e. services) to be productive of surplus-value, to pause and reconsider the question.

The proliferation of "consumer services" in the advanced capitalist countries is not evidence that such services are productive of value and surplus-value, but rather they are evidence that the productive labourers are very productive. Profitability in this context is not evidence of productivity.

The concepts of productive and unproductive labour, when properly understood, can be powerful tools in analysing the problems of accumulation and development. However, a proper appreciation of these concepts must also include an understanding that in the last analysis social surplus-value must be embodied in social surplus-product. Moreover, without the concept of *necessary labour*, and particularly socially necessary labour, one's judgement can be impaired. The real productivity of labour is always a question of numbers or quantities of products or goods produced by given hours of labour; in the last analysis, all economy is the economy of time in production. The fact that this reality is often masked and distorted by the money-commodity form under capitalism should not allow us to be bemused into an acceptance of profitability as the only criterion by which to judge.

Just as under capitalism a very unproductive enterprise, e.g. arms production may be run very profitably, so too, in a rationally planned society, it may be socially desirable to increase certain types of unproductive activities. But only by social accounting can the true social surplus be properly ascertained and properly distributed. These unproductive activities need to be placed within the context of the overall social goals set by a particular society. Not all unproductive labour is parasitic — as may sometimes be assumed — but, on the contrary, such labour may be vital to the continued well-being of the mass of the people. Therefore it is necessary to adopt a scientific attitude towards productive and unproductive labour, and not view it in moralistic terms.

FOOTNOTES

1. K. Marx, *Theories of Surplus Value*, Pt. I, Moscow, Progress Publishers (n.d.), p. 148-49
2. *ibid.*, p. 153.
3. *ibid.*, p. 390.
4. *ibid.*, p. 392
5. K. Marx, *Capital*, Vol. I, Moscow, Progress Publishers, 1965, p. 177.
6. *ibid.*, p. 35.
7. *ibid.*, p. 35.
8. *ibid.*, p. 36.
9. *ibid.*, p. 36.
10. *ibid.*, p. 40.
11. *ibid.*, p. 146.
12. *ibid.*, p. 150.
13. *ibid.*, p. 508.
14. *ibid.*, p. 508.
15. *ibid.*, p. 509.
16. *ibid.*, p. 509.
17. *ibid.*, p. 509.
18. *ibid.*, p. 509.
19. K. Marx, *Theories of Surplus Value*, Pt. III London, Lawrence & Wishart, 1969, p. 370.
20. Marx, *Capital*, Vol. I, p. 509.
21. *ibid.*, p. 564.
22. K. Marx, *Capital*, Vol. II, Moscow Progress Publishers, 1967, p. 135.
23. *ibid.*, p. 409.
24. Marx, *Theories of Surplus Value*, Pt. III, p. 45.
25. *ibid.*, p. 43.
26. Marx, *Capital*, Vol I, p. 171.
27. Marx, *Theories of Surplus Value*, Pt. III, p. 370.
28. Marx, *Capital*, Vol. I, p. 230
29. *ibid.*, p. 581.
30. Marx, *Theories of Surplus Value*, Pt. I, p. 393.
31. *ibid.*, p. 181.
32. Marx, *Capital*, Vol. II, p. 134-135.
33. *ibid.*, p. 137.
34. The presentation of the division of national income is based upon a similar one in Ernest Mandel's *Marxist Economic Theory*, London, Marlin Press, 1968.

RESEARCH TOPIC: A FARM-LEVEL SURVEY OF THE IMPACT OF THE ON-GOING AGRARIAN REFORM ON RESOURCE USE AND INCOME: A COMPARATIVE APPROACH¹

PRINCIPAL INVESTIGATOR: TESFAYE TEKLU *

DATE OF RESEARCH COMMENCEMENT: SEPTEMBER, 1976

THEORETICAL FRAMEWORK

The major breakthrough of the on-going Agrarian Reform was the Proclamation For The Public Ownership Of Rural Lands. The salient features of the Proclamation include the nationalization of rural lands, the abolition of the feudal production relations, the initiation of the formation of peasant associations and the creation of conditions for the emergence of a peasant economy dominated by a system of Peasant Proprietorship.

With the nationalization of rural lands, land ceases to be in the private ownership of individuals and institutions. It calls, however, for an immediate redistribution of land with emphasis, in particular, in the regions of private ownership of land; but the amount of land to be allocated cannot exceed the ten-hectare limit. Land acquired under this provision is not transferable in any form. And like land, labour also ceases to function like a commodity in the rural markets.

The Proclamation abrogates the landlord-tenant relationships. This relieves the Ethiopian *GEBBARS* from the exploitative character of feudal exactions. It also breaks away from the patron-client relationships which were formerly the dominant feature in Southern Ethiopia.

The emergence of peasant associations in a four-level hierarchical structure marks the transfer of political power to the lower strata of the peasantry. This should create a broad institutional framework for the participation of the peasantry in the on-going process of social formation. These associations are given the responsibilities of implementing the major provisions of the land reform laws and the associated ensuing agrarian policies.

The Proclamation for Public Ownership Of Rural Lands, taken in isolation, envisages the development of a peasant economy with a predominant form of organization of private farms. But the objectives of the National Democratic Revolutionary Programme and the subsequent proclamation and policies of the state clearly indicate that such a phenomenon is transient, considered only as a necessary stage to lay the ground for the organization and development of production units appropriate for the making of a Socialist Agricultural State.

The on-going field research, which was initiated in the summer of 1976, attempted to capture the immediate effects of the land reform laws and the associated policies on:

- (a) the pattern of land utilization,
- (b) the pattern of labour utilization and migration,
- (c) the re-distribution of rural wealth and income and its implications for the rural expenditure patterns,
- (d) the assessment of the prospects of peasant-based institutions, in particular peasant associations, in the formative process of Socialist Agriculture.

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The implementation of re-distribution of land has an immediate effect on the social structure of rural Ethiopia. It puts an end to uneven distribution of land ownership, and as a result to the economic basis and the associated socio-political power of landlord classes. The erosion of the economic basis of the feudal classes destroys the apex of the feudal pyramid which formerly dominated the central and regional polity of the Empire. At the other extreme, the distribution of land in favour of the landless peasantry and the agricultural workers elevates their socio-economic and political position in the emerging social structure.

The abolition of land as the source of political power and a possible re-organization of the extremely fragmented small farms will make available more land for productive uses.

The beneficiaries of the land reform laws, now freed from oppressive feudal institutions, are in a better position to make decisions on land use. Unless the government issues land use regulations or indirectly intervenes to manipulate the decision variables of the farmers, however, they tend to produce more subsistence food products. This would be contrary to what one would expect under a landlord-dominated system of production. The size of individuals' farm plot, below ten hectares, and the increasing employment of their labour time will raise the productivity of land at farm level. The desire for such an increase in land productivity coupled with the direct support of the government may encourage farmers to increase their demand for high-yielding agricultural inputs.

The on-going agrarian reform may also have direct bearings on the pattern of rural migration with the abolition of the feudal landholding system and related effects on production, which were considered to be the major push factors for rural exodus; and with the increasing availability of employment opportunities, there may be an observable reversal of the pattern of migration. Thus, the reform has the potential of retaining possible emigrants from the rural sector.

The end of the feudal system of appropriation of economic surplus will re-distribute income across the bulk of the peasantry. In addition to the redistribution effect, the increase in productivity of land will augment the income capacity of the farmers. The redistribution and the production effects of the land reform will have a considerable impact on the rural expenditure patterns. Farmers tend to consume a large part of their incremental income, mainly food products. The consumption of non-farm products may be increasing, but it will consist of a small proportion of the farmers' budget. The share of farm operational expenses and investment will account for a major part of total capital outlay.

The expected demand structure may also have an expansionary effect on the non-farm sector. It may induce the growth of rural industries which produce farm inputs and consumption goods and which process farm products. The overall demand profile of the beneficiaries tends to be consistent with the endowments of the peasant economy, increases the relative share of the total agricultural income, and re-directs the flow of economic surplus to the farm sector. These expected cumulative effects, however, depend on orientation and farm-related policies of the government.

The effectiveness of the implementation of the land reform laws depends, by and large, on the effectiveness of the emerging peasant associations. Any meaningful study of the rural milieu should incorporate an assessment of the strength of these associations. This survey includes, as a component of the research package, a study of the organizational structure of Peasant Associations, the process of decision-making, the farmers perception of the process of the agrarian reform, the quality of the leadership and an assessment of the capacity of the associations to shoulder their responsibilities.

METHODOLOGY

Based on these major inferences concerning the land reform laws, the investigator derived major hypotheses and study variables. These include the following major hypotheses which the conditions of the on-going agrarian reform created for:

- a) the promotion and allocation of the volume and composition of farm output in line with the needs of the farmers;
- b) the efficient re-organization and layout of farm units;
- c) the productive utilization of farm labour;
- d) the increasing adoption of improved farm implements and inputs;
- e) the increasing use of farm income on farm consumption and farm inputs;
- f) a shift of the consumption pattern consistent with nutritional requirements and factor endowments of the rural sector;
- g) a decline in the share of consumption loans in the total farmers' budget;
- h) a relative decrease of farmers' participation in the unorganized rural money markets;
- i) the retention of potential emigrants from the rural farm sector; and
- j) a shift in the major determinants of rural exodus, other than non-land related factors.

Our dependent variables are thus the level of farm output, farm labour and non-labour inputs, volume of improved farm inputs, volume of income and expenditure flows, and volume of migration of the rural labour force.² The field research, which is structured at farm household and peasant associations levels, concentrates on these selected variables and aims at studying the nature, pattern, and magnitude of the shifts of the variables. At the level of farm households, the enquiries cover the socio-economic profile, cropping pattern and practices, patterns of land and labour use, and flows of income and expenditure. The information on land and labour uses and flows of income and expenditure is followed on a longitudinal basis.

The expected results of the hypothesised relationships depend largely on the 'effectiveness' of the peasant associations. Thus, the 'effectiveness' of the peasant associations is considered as our proxy independent variable against which the principal hypotheses are tested. In order to isolate the impact of the success of these peasant associations, we designed a mechanism of minimizing the influence of the non-essential variables. We selected two regions which demonstrate similarity of bio-climatic features, predominant form of farm organization, dominant methods of production, pattern of previous land tenure system, impact of urbanization, and an accessibility to development oriented projects. The third region, for purposes of comparison and contrast, is dissimilar in the aforementioned characteristics. But to study the impact of peasant associations, the regions are those which appear to show different degrees of success in implementing the land reform laws.

The control of the above-mentioned major influential factors does not mean that all the intervening variables are controlled. Some of them are not easily detectable, and the inherent characteristics of *ex-post facto* research do not permit such possibilities.

At the level of Peasant Associations, the survey focuses on the socio-economic backgrounds of their members, including their leaders, their organizational structure and functions, and the development of peasant movements.

At the level of farm households, the field survey covers samples of farm households in these research regions. Peasant Associations are used as our sample frame, since we expected them to have the recent list of farm households. The Peasant Associations are hence our primary sampling units. To identify those primary sampling units which are relevant to our purpose, we stratified them in each region on the basis of the above physical and socio-economic characteristics. For the first two regions we selected only those sets of Peasant Associations which show common characteristics. But, in the case of the third region, we picked only those which do not exhibit similar characteristics. To determine the sample sizes, we have applied a stratified two-stage random sampling technique which appears to be consistent with our research design and also feasible within our operational constraints. But, at the level of Peasant Associations, we undertake a complete enumeration of all Peasant Associations in the regions.

As an attempt to exhaust all possible sources of the required information, and to obtain statistically reliable data, we have considered both the direct and indirect methods of data collection. Under the first category are included the direct interviewing approach and objective measurement. The interviewing approach is the principal instrument of data collection. Apart from the direct method, the field research involves studying archives, existing published materials and documents.

At this stage we have nearly completed the data collection. The data collection at the farm household level is completed in two centres, and the third centre will be covered by the end of March. Concurrently, the data are coded and punched in preparation for processing by computer.

The research findings will come out in three volumes. Volume One covers the Base-line Socio-economic characteristics; Volume Two deals with the Organization, Structure and Functions of Peasant Associations; and Volume Three takes the Farm Management Survey and tries to present it in an analytical way.

The IDR Documentation centre will make these volumes available on demand to prospective users.

FOOTNOTES

- 1 The original Revised Research Proposal is available at IDR Documentation Centre for those who are interested in obtaining the details.
- 2 The original research proposal presents a detailed description of the measures, and the appropriate sources of information.